SCANNED # 20

FIG. 1

Ye etal.

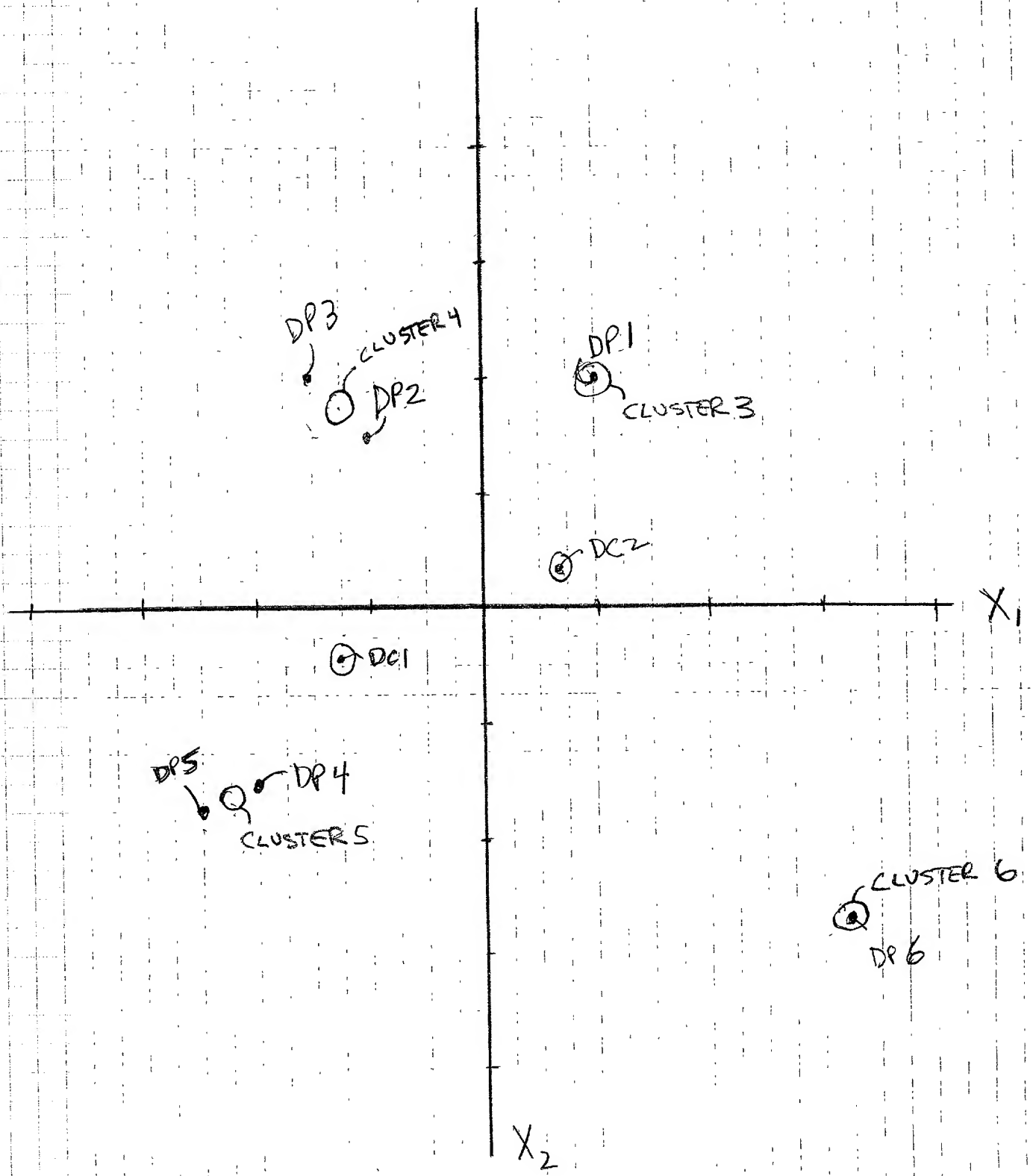
DP3
CLUSTER 4
DP2
DP1
CLUSTER 3
DC2
X_1
DC1
DP5
DP4
CLUSTER 5
CLUSTER 6
DP6
X_2

FIG. 2

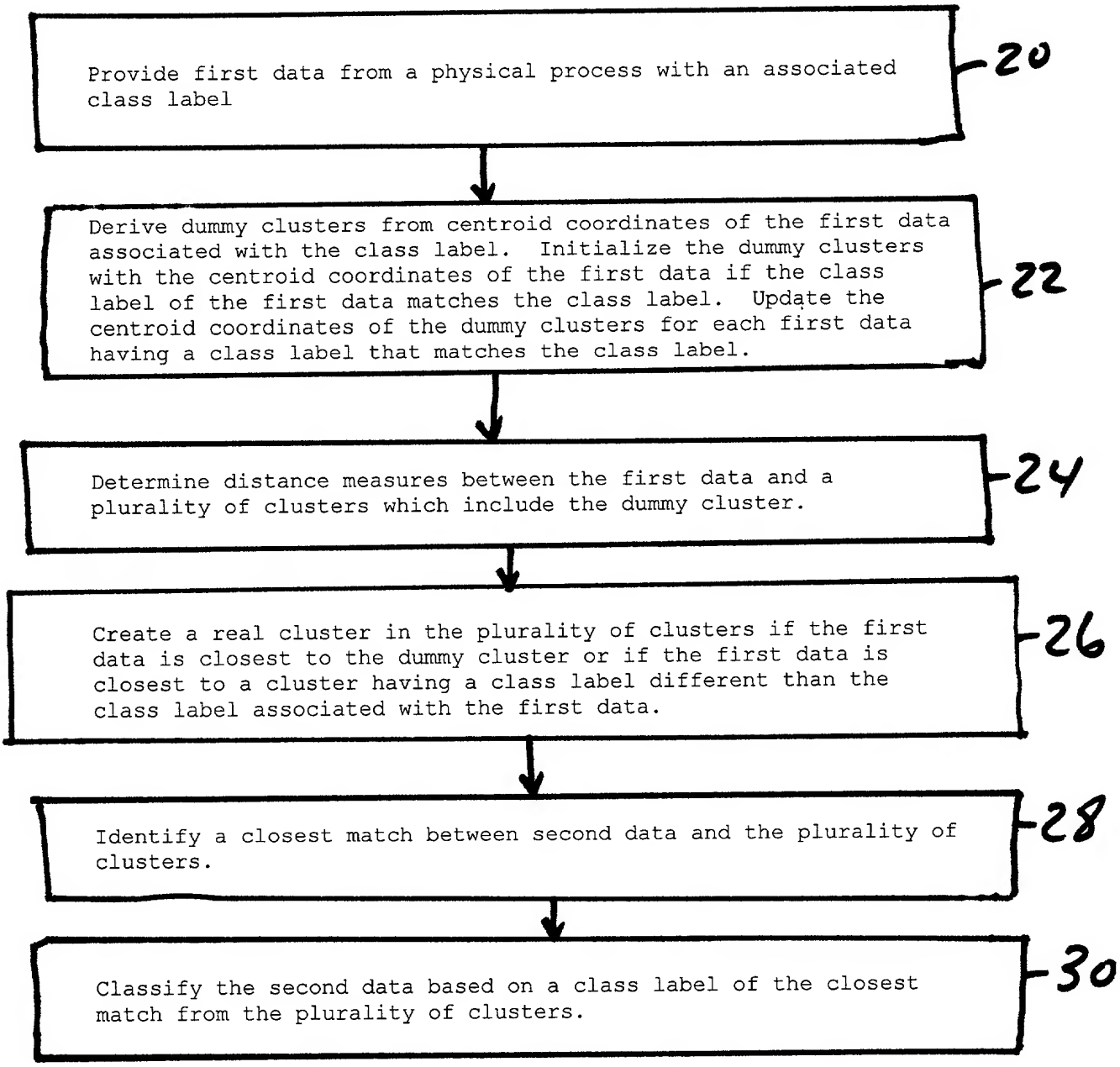
Provide first data from a physical process with an associated class label
20
Derive dummy clusters from centroid coordinates of the first data associated with the class label. Initialize the dummy clusters with the centroid coordinates of the first data if the class label of the first data matches the class label. Update the centroid coordinates of the dummy clusters for each first data having a class label that matches the class label.
22
Determine distance measures between the first data and a plurality of clusters which include the dummy cluster.
24
Create a real cluster in the plurality of clusters if the first data is closest to the dummy cluster or if the first data is closest to a cluster having a class label different than the class label associated with the first data.
26
Identify a closest match between second data and the plurality of clusters.
28
Classify the second data based on a class label of the closest match from the plurality of clusters.
30

FIG. 3